

## **AMENDMENTS TO THE SPECIFICATION**

On Page 1, please add the following paragraph after the title, and before the heading "*TECHNICAL FIELD*":

### **CROSS-REFERENCE TO RELATED APPLICATION**

This application is based upon and claims the benefit of priority from Japanese Patent Application Nos. 2003-317099, filed on September 9, 2003, and No. 2003-351161, filed on October 9, 2003, the entire contents of which are incorporated herein by reference.

Please replace the Paragraph beginning on Line 12 of Page 1 and after the heading "*BACKGROUND ART*" with the following paragraph rewritten in amendment format:

In a conventional wireless packet communication apparatus, only one radio channel to be used is determined in advance and it is detected whether the radio channel is idle or not (carrier sense) prior to transmitting data packets. Only when the radio channel is idle, only one data packet is transmitted. By such a control, one radio channel can be used together at different times by a plurality of STAs ((1) ~~IEEE 802.11 "MAC and PHY Specification for Metropolitan Area Network", IEEE 802.11, 1998, International Standard ISO/IEC 8802-11 ANSI/EEE Std. 802.11, 1999 edition, Information technology – Telecommunications and information exchange between systems – local and metropolitan area networks – Specific requirements – part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications;~~ (2) "Low-powered Data Communication System/Broadband Mobile Access Communication System (CSMA) Standard, ~~ARIB SDT-T71~~ ARIB STD-T71 version 1.0, Association of Radio Industries and Businesses, settled in 2000).

In the section titled "*DISCLOSURE OF THE INVENTION*", please replace the following paragraphs as indicated below.

Please replace the Paragraph beginning on Line 3 of Page 7 with the following paragraph rewritten in amendment format:

~~The inventions of Claims 1 and 10~~ The first and tenth aspects of the invention are a wireless packet communication method and wireless packet communication apparatus, respectively, in which data packets are transmitted by use of radio channels which are determined to be idle by carrier sense, between more than three STAs in which a plurality of radio channels are available.

Please replace the Paragraph beginning on Line 4 of Page 8 with the following paragraph rewritten in amendment format:

~~The inventions of Claims 2 and 11~~ The second and eleventh aspects of the invention are a wireless packet communication method and wireless packet communication apparatus, respectively, in which, between more than three STAs which can perform the MIMO on a plurality of signals for one radio channel, data packets are transmitted by the MIMO by use of radio channels which are determined to be idle by carrier sense.

Please replace the Paragraph beginning on Line 14 of Page 9 with the following paragraph rewritten in amendment format:

~~In the invention of Claim 3 according to Claim 1 or 2 and the invention of Claim 12 according to Claim 10 or 11,~~ In a third aspect of the invention according to the first and second aspects of the invention and in a twelfth aspect of the invention

according to the tenth or eleventh aspects of the invention when a plurality of data packets whose packet time lengths are approximately equal to each other are selected in association with the transmission rates lower than current transmission rates, the transmission rates to perform transmissions are switched over to the lower transmission rates.

Please replace the Paragraph beginning on Line 25 of Page 9 with the following paragraph rewritten in amendment format:

~~In the invention of Claim 4 according to Claim 1 or 2 and the invention of Claim 13 according to Claim 10 or 11,~~ In a fourth aspect of the invention according to the first or second aspect of the invention and in a thirteenth aspect of the invention according to the tenth or eleventh aspect of the invention, when a first mode where into a plurality of data packets whose packet time lengths are equal to each other are generated by dividing a unit of data on a transmission buffer and a second mode where a plurality of data packets whose packet time lengths are substantially equal are generated by adding a dummy signal to at least one of a plurality of data packets whose packet time lengths are different can be selected, transmission efficiency in the first mode and transmission efficiency in the second mode are compared to each other, and a plurality of data packets whose packet time lengths are approximately equal to each other are selected according to the comparison result.

Please replace the Paragraph beginning on Line 19 of Page 10 with the following paragraph rewritten in amendment format:

~~In the invention of Claim 5 according to Claim 1 and the invention of Claim 14 according to Claim 10,~~ In a fifth aspect of the invention according to the first aspect

of the invention and in a fourteenth aspect of the invention according to the tenth aspect of the invention, an STA which receives a plurality of data packets including data packets addressed to the own station generates acknowledgment packets for the data packets addressed to the own station and compares the receive rates of all the data packets received simultaneously to each other. The STA detects as the lowest receive rate the maximum mandatory rate not exceeding the minimum value of all the receive rates of the data packets, and transmits the acknowledgment packets at the lowest receive rate.

Please replace the Paragraph beginning on Line 9 of Page 11 with the following paragraph rewritten in amendment format:

~~In the invention of Claim 6 according to Claim 1 and the invention of Claim 15 according to Claim 10,~~ In a sixth aspect of the invention according to the first aspect of the invention and in a fifteenth aspect of the invention according to the tenth aspect of the invention, an STA which receives a plurality of data packets including data packets addressed to the own station generates acknowledgment packets for the data packets addressed to the own station and compares the receive rates of all the data packets received simultaneously to each other. When all the receive rates of the data packets are not the same, the STA detects as a lowest receive rate the maximum mandatory rate not exceeding a minimum value of all the receive rates, and detects as a local receive rate the maximum mandatory rate not exceeding the receive rates of the data packets addressed to the own station. When the local receive rate is higher than the lowest receive rate, the STAs adds, to the acknowledgment packets, a dummy bit corresponding to a difference between a first packet time length of an acknowledgment packet to be calculated from the lowest

receive rate and a second packet time length of an acknowledgment packet to be calculated from the local receive rate, to transmit them at the local receive rate. When the local receive rate and the lowest receive rate are equal to each other, the acknowledgment packets are transmitted at the lowest receive rate.

Please replace the Paragraph beginning on Line 14 of Page 12 with the following paragraph rewritten in amendment format:

~~In the invention of Claim 7 according to Claim 1 and the invention of Claim 16 according to Claim 10,~~ In a seventh aspect of the invention according to the first aspect of the invention and in a sixteenth aspect of the invention according to the tenth aspect of the invention, the STA which receives a plurality of data packets including data packets addressed to the own station generates acknowledgment packets for the data packets addressed to the own station and compares the receive rates of all the data packets received simultaneously to each other. When all the receive rates of the data packets are not the same, the STA detects as a lowest receive rate the maximum mandatory rate not exceeding a minimum value of all the receive rates, and detects as the local receive rate the maximum mandatory rate not exceeding the receive rate of the data packet addressed to the own station. When the local receive rate is higher than the lowest receive rate, the STA sets a transmission deferral duration (NAV) in the acknowledgement packets according to the packet time length of an acknowledgment packet to be calculated from the lowest receive rate and transmits them at the local receive rate. When the local receive rate and the lowest receive rate are equal to each other, the STA transmits the acknowledgment packets at the lowest receive rate.

Please replace the Paragraph beginning on Line 17 of Page 13 with the following paragraph rewritten in amendment format:

~~In the invention of Claim 8 according to Claim 2 and the invention of Claim 17 according to Claim 11,~~ In an eighth aspect of the invention according to the second aspect of the invention and in a seventeenth aspect of the invention according to the eleventh aspect of the invention, the STA which receives the plurality of data packets including data packets addressed to the own station generates acknowledgment packets for the data packets addressed to the own station and detects acknowledgment-packet transmission times which are held in the data packets addressed to the own station. At the timing of acknowledgment-packet transmission time, the STA transmits the acknowledgment packets at the maximum mandatory rate that does not exceed the receive rates of the data packets addressed to the own station.

Please replace the Paragraph beginning on Line 11 of Page 14 with the following paragraph rewritten in amendment format:

~~In the invention of Claim 9 according to Claim 2 and the invention of Claim 18 according to Claim 11,~~ In a ninth aspect of the invention according to the second aspect of the invention and in an eighteenth aspect of the invention according to the eleventh aspect of the invention, the number ( $N_{ch}$ ) of idle radio channels and the number ( $N_p$ ) of data packets whose packet time lengths are approximately equal to each other are detected, and  $N_p$  data packets are transmitted at the same time by use of  $N_p$  radio channels without using the MIMO when  $N_{ch}$  is more than  $N_p$  ( $N_{ch} \geq N_p$ ), and a plurality of data packets are transmitted at the same time by use of the MIMO when  $N_{ch}$  is less than  $N_p$  ( $N_{ch} < N_p$ ).

On page 14, please add the following paragraph beginning on line 25 and after the heading "*BRIEF DESCRIPTION OF THE DRAWINGS*":

The nature, principle, and utility of the invention will become more apparent from the following detailed description when read in conjunction with the accompanying drawings in which like parts are designated by identical reference numbers, in which:

On Page 43, please add the following paragraph beginning on Line 25 and before the heading "*INDUSTRIAL APPLICABILITY*":

The invention is not limited to the above embodiments and various modifications may be made without departing from the spirit and scope of the invention. Any improvement may be made in part or all of the components.